

Abstract of the Disclosure

A plasma processing system comprises a processing chamber into and from which processing gas is inlet and outlet; a pair of electrodes disposed so as to mutually oppose within the processing chamber; a RF feeding apparatus for generating plasma between the pair of electrodes; a retaining/removal apparatus for retaining a substrate to be processed on and removal from a sample table while one of the pair of electrodes is taken as the sample table; and a detection apparatus for detecting the electrostatic-chucking state of the substrate and for detecting removal state of electrical charges from the substrate, on the basis of variations in impedance arising between the sample table and the substrate.